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I.

GODMAN ON TIGHT LACING.

*Injurious Effects of Tight Lacing
on the Organs and Functions of
Respiration, Digestion, Circula-
tion, &c.*

It is not without hesitation that the writer ventures to call attention to the injuries produced by **TIGHT LACING**, being well aware that he is exposing himself to the chance of severe animadversion for appearing to meddle officiously with the concerns of the fair sex, who never fail to punish every encroacher upon their rights and privileges. Notwithstanding, as our object is, if possible, to avert great suffering and much future misery, by setting forth the evils following manifest abuses, introduced and augmented by fashion, we hope due indulgence will be extended by our fair readers, whose real good we are most solicitous to promote.

The observations of various authors have satisfactorily shown, that certain errors in dress and exercise induce deformity of person and unhappiness of mind; but their attention is almost entirely devoted to the injuries done to the organs of support and motion, the bones and muscles.* Great as are the evils they treat of, they seem slight when compared with the

pernicious effects of similar causes, on organs more immediately essential to the life of the individual, the disarray of which, though not signalized by very obvious deformity, is inevitably followed by protracted debility and suffering, an early, rapid decay, or a painful and premature death. It is impossible for a benevolent mind, acquainted with the reality and extent of the mischief thus produced, to behold youth, grace and beauty sacrificing the dearest boons of life to the tyranny of perverted taste and preposterous fashion, without experiencing emotions of profound regret for the immediate victims, and sighing for the future condition of a posterity derived from such a parentage!

In what way can the hitherto irresistible torrent of fashion be stemmed? Have not reason and experience been appealed to in vain? Have not the shafts of satire, the serious remonstrances of morality, and even the awe-inspiring declarations of religion, too often fallen ineffectual to the ground? One mode of producing the desired conviction in the minds of females, has been left almost unattempted; and from the operation of this method much is to be hoped. It is by imparting to "nature's last, best work," a sufficient knowledge of the peculiar construction of the human system, to place in the clearest light the dreadful risks

* See the works of Shaw, Duffin, &c., on Deformities of the Spine, &c.

those run who indulge in the vices of dress, and the cruel maladies which are certainly induced in delicate frames by such as persist in disregarding the warnings offered by reason and science. To us it appears scarcely possible that a female of ordinary intelligence can become even superficially acquainted with the curious actions necessary to the processes of breathing, circulation, and nutrition, without shrinking in terror at the thought of the dangers to which those are exposed, who intentionally counteract nature in all her benevolent designs, by violently compressing their persons, according to whatever model capricious and ever-varying fashion may dictate.

That part of the human frame most immediately subjected to tight lacing, is not only one of its most lovely external proportions, but contains and defends the organs so important and indispensable to existence, the LUNGS and HEART, which perform the functions of respiration and circulation, to purify and perfect the blood, and send its rich and vivifying streams to the remotest extremities of the system. On the perfect action of these great organs depend all our vigor and elasticity; the roseate bloom and radiant eye of beauty; the joyous buoyancy of youth, and the steady sereness of maturity. When these functions are impaired, pallid features, anguishing debilities, melancholy depression of spirits, agonizing decay, and a long train of ghastly maladies, destructive of hope, and rendering life a burthen, must necessarily ensue.

The part of our structure to which allusion is made, is popularly called "the chest;" and to judge them by their practice, many of our fair countrywomen regard it

as a mere empty, flexible case, which may safely be squeezed into whatever compass the possessor pleases. Unfortunately for them, this is far from the reality; the chest is an admirably complex contrivance, whose free motions are as necessary to breathing and circulation, as these processes are to health and life. Consequently, whatever diminishes the capacity of the chest, proves directly injurious by excluding the air, and every impediment to its movements prevents the proper transmission of the blood through the lungs.

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As all the parts described [those concerned in forming and filling up the chest] are flexible and moveable from their peculiar nature and connections, it is obvious that the first effect of any tightness or constriction will be to impede their proper motions, and thrust them out of their natural position. Thus, the corset being laced tightest at the part of the chest having the shortest ribs, the longest and most flexible cartilages, and the most extensive motion, produces narrowing of the chest, renders its free movements impossible, and permanently deforms it by doubling the cartilages inward near their junction with the breast bone. As if this mischief were not great enough, another instrument of torture is added in the form of a steel or hickory *busk*, which is pushed into its sheath in the already too tight corset, immediately over, and extending along, the whole length of the breast bone. This busk is to keep the body from bending forward in the centre, and to prevent the dress and corset from "hooping up," as it is called. As the body cannot possibly be prevented from leaning forward to a certain de-

gree, the consequence is, that the whole weight of the superior part is sustained upon the lower part of the breast bone, which leans directly against the busk, at a point where it is least supported by the attachment of the cartilages of the ribs. The point thus injuriously pressed upon, is nearly opposite the lesser end of the stomach, and most of those who habitually lace tight, have a depression here, which would contain the size of half an egg. Either a constant feeling of aching and soreness is experienced at this point, or when the busk is taken out, it is so sore and painful that the individual cannot bear the slightest pressure without an exclamation of distress.

We have, then, among the first effects of the tight lacing and pressure of the busk, impairment of motion and deformity of the chest, accompanied by a constant soreness and irritation over the stomach, whose undisturbed action is one of the greatest essentials to health. If, however, this was the sum of the evil, we might regard it as tolerable, being apparently external. But when the lower part of the chest is compressed, the liver is by the same force squeezed upwards and inwards, and, being a large and solid body, it pushes before it the diaphragm, and forcibly prevents its descent in the act of breathing; while on the other side, the spleen and stomach are forced upwards, producing a similar effect on the diaphragm; and the functions of all these organs, the liver, stomach, and spleen, must be impaired in proportion to the pressure and displacement their delicate nerves and vessels suffer. In addition to these greater or more obvious injuries to the functions of individual organs, we may now add the evils caused

to the great vital functions. The same pressure which forces the liver, &c., inwards and upwards, by squeezing the texture of the organs together, prevents the free entrance of the blood into them, and by being thrust firmly back against the spine and lower part of the diaphragm, they compress the openings by which the blood passes to and from the heart, through the great vein and artery. The consequence of thus damming up the vital current, is the gradual development of irregularity of action in the heart, palpitations, tendency to faint, violent throbings, and in some cases organic alteration in the heart itself. This same tightening of the lower part of the chest, and prevention of the enlargement of its cavity by stopping the descent of the diaphragm, acts with equal injury on the blood which should descend from the great veins of the head and arms to the heart at each breathing. The proper quantity of blood cannot be delivered therefrom, for want of proper dilatation of the chest, and the individual is subject to violent headaches, dulness, low spirits, extreme paleness, or leaden hue of countenance.

These readily observable consequences are but the commencement of ills from this source. The lungs being withheld from their proper actions by not being sufficiently dilated, the air cannot get access to the blood, and the blood cannot receive that purification or elaboration which renders it fit to sustain the body in health. Its watery, carbonaceous, and other impurities, are retained instead of being thrown off, and in place of a brilliant vermillion-colored fluid being sent to the left side of the heart for the general system, it returns of a dark

or bluish red, scarcely better than when it entered the lungs, and almost utterly unfit for any of the purposes of life. This condition, if kept up, is soon made sensible by defective energy in all parts of the body, by various local diseases, and slight morbid changes, sufficient to render life irksome. Cold extremities, pale visages, troubled sleep, excessive mobility of system, commonly called *nervousness*, evinced by great agitation from very inadequate causes, &c., are among the most generally obvious consequences of such impairments of function.

(To be concluded next week.)

II.

EPILEPSY.

DR. EPPS, lecturer on chemistry, has published an interesting case of epilepsy, in which he successfully prescribed the sulphate of quinine. The patient, a youth about seventeen years of age, the day after having been exposed to much rain, was seized with epileptic fits, which continued, with slight cessations, during the greater part of the day. Since the first attack (a period of two months), he had not passed a day without a fit, which came on *every morning* about nine o'clock. This circumstance indicating, in Dr. Epps's opinion, "an analogy between this species of epilepsy and intermittent fever," induced the Doctor to prescribe the sulphate of quinine. In order to prepare the stomach for its exhibition, the Doctor ordered the following powder :—

Take of Carbonate of Ammonia, 1 gr.;
Ipecacuan Powder, $\frac{1}{4}$ gr.;
Comp. Jalap Powder, 7 gr.;
Rhubarb Powder, 10 gr. Mix.

Six grains of sulphate of quinine, with one grain of cinnamon powder, were administered the following day, at seven o'clock in the morning, and he was directed to take a cup of coffee about eight. By this practice the patient was cured. Dr. Epps also notices a case of periodical epilepsy, in which the sulphate of quinine succeeded in the practice of Mr. Mantell, an experienced surgeon of Newick, in Sussex. The patient ("a fine girl") was about thirteen years of age. The fits being preceded by giddiness and severe pains in the forehead, and the sanguiferous system being plethoric, Mr. Mantell "bled her from the arm, and prescribed a brisk purgative and a blister to the nape of the neck." The sulphate of quinine, in the dose of two grains three times a day, effected a cure.

Dr. Wedemeyer, a physician of Hanover, relates the case of an epileptic patient, who, after the use of nitrate of silver for eighteen months, was completely cured; but the skin, as generally happens in cases of this kind, became of a dark lead color. Some time afterwards the patient died from disease of the liver and dropsy. On examination of the body, the plexus choroides was of a dark blue color; and some of the viscera having been submitted to a chemical analysis, were found to contain a considerable quantity of silver.

About three months ago, we opened a gentleman who died of extensive disease of the lungs and of the spleen. On examining the liver, we were surprised to find the peritoneal covering of the under portion of the right lobe of a peculiarly dark lead color. The

substance of the liver was perfectly healthy. We have since ascertained the fact, that he had for some time been taking the nitrate of silver, under the direction of a physician, for morbid sensibility of the stomach. The skin was not in the slightest degree tinged by it.—*Gaz. of Health.*

III.

MELÖNA WITH HARDENING OF THE PANCREAS.

UNDER this head, a very interesting case of gastric and abdominal disease, accompanied with discharges of blood from the stomach and bowels, is related by Dr. Schirlitz in Rust's Magazine, No. 3, 1829.—Mary M., 51 years old, slender make, and of a meagre habit, with a jaundiced hue of the skin, had, from her 15th year, suffered frequent attacks of pain in the stomach, extending towards the back, accompanied with a vomiting of a watery fluid. The patient had ceased to menstruate for about a year. The discharge had always been trifling, and attended with pain in the loins. In the commencement of July, 1827, the pain in the stomach augmented greatly in violence. She had taken a variety of remedies without the advice of a physician. Dr. S. saw her, for the first time, September 12th, 1827. She was lying in bed, her knees drawn up to the abdomen, complained of a severe pain in the epigastrium and left hypochondrium, and was greatly exhausted. She had constant eructations, had twice vomited blood, and passed a quantity of the same,—black, coagulated, and of a fetid smell,—by stool. There was a very distinct

pulsation at the epigastrium. Besides these symptoms, she was subject to horripilations, cold clammy sweats, violent pulsation of the heart, frequent faintings, ringing in the ears, and constant dragging pain at the spine. Her breathing was short and attended with a dry cough, and her pulse small and scarcely perceptible, disappearing under the fingers. Cold applications were directed to the epigastrium, and internally acetic ether, with sulphuric acid and water for drink. By this, the disposition to faint was entirely removed, and the pulse somewhat raised. In the evening, the abdomen was tumid, and the epigastrium very painful. Tamarind water with cream of tartar for drink, and an injection of whey. On the 16th, severe eructations: about six ounces of blood discharged by stool. The patient had taken some thin soup, which caused severe pain of the left hypochondrium, extending to the loins. The pulsation at the epigastrium was so considerable as to be perceived by the eye; pulse small, 90 in the minute. Seven leeches were applied to the anus. September 22d.—During the four last days, three discharges per anum, of a black bloody fluid resembling tar. The patient is now only able to lie on the left side; great debility; pulsatio epigastrica considerable; great thirst; frequent, small pulse; severe pain in the left hypochondrium. The symptoms continued pretty much the same, the vomiting of blood being occasionally repeated, with discharges per anum of an offensive tar-like fluid, until the 25th, when the faeces became natural in consistency and color, and the patient was able to turn on the

other side. To relieve the pain which still continued, from six to eight drops of laudanum were directed during the height of the paroxysm. Whey clysters were administered, and a solution of acetate of potassa, with ext. tarax. et gram., by the mouth. The patient had now from two to three natural stools per diem. On the 7th of October, the vomiting of blood returned, with the morbid discharges from the bowels already alluded to. There was constant pain of the epigastrium; the pulsation at the latter very considerable before each attack of vomiting; the abdomen tumid, but soft. From constant pain and loss of sleep, the patient now sunk rapidly. She could lie only on the right side, with her knees drawn up. On the 12th, a quantity of blood was discharged from the stomach, and on the 13th she died.

Sectio Cadaveris.—Both lungs adhered to the pleura,—their parenchyma studded with tubercles of the size of a pea. Heart natural, and filled with coagulated blood. The liver without any mark of disease; the gall bladder rather large, and nearly empty. The stomach filled with coagula of blood; its mucous membrane of a deep red color. The mucous membrane of the duodenum studded with numerous black points. The transverse arch of the colon distended; its inner surface covered, as was also that of the intestines generally, with a black, pitch-like substance. The pancreas was somewhat enlarged, and of so firm a texture that the scalpel could scarcely penetrate into it.—*Med. Gaz.*

IV.

TREATMENT OF SCABIES.

Dr. Walter C. Dendy, in his treatise on the Cutaneous Diseases of Children, offers the following remarks on the treatment of this disease:—

In the treatment of scabies, a multitude of vegetable and mineral preparations have been eulogized by their respective advocates; but of all these remedies, that which has proved most generally efficacious is sulphur, the basis indeed of the majority of formulæ.

In the milder cases, especially of the scabies lymphatica, the internal exhibition of sulph. precipitat. will often be perfectly curative.

In the more severe form, it will be essential to combine the local application of ointment, of lotion, or of fumigation, with this mineral. I will present a few of these formulæ, premising that I consider the first, that of M. Alibert, the most congenial to all the forms of scabies, and the most successful.

R. Potass. sulphuret. 3j. vel 3ij.
Aq. fluv. lbj.—M.

R. Acid. muriat. 3j. vel 3ij.
Aq. distill. lbj.—M.
Misce 3j. sing. lotionis aq. font. 3iv.
et lave spongia.

R. Sulph. sublim. p. 2.
Potass. subcarbon. p. j.
Adip. suillæ, p. 8.—M.
1ma. die utere 3j.—2da. terties in-
dies.—Stia. balneum tepidum.*

R. Potass. sulph. 3iv. Aq. dist. lbj.
Acid. sulph. 3iv.—M. Bis in-
dies pro diebus 6.†

* Alibert. † Dupreytren.

The soapy sulphureous ointment at St Louis.

R. Flor. sulph. 3 v.
Ol. Olivæ 3 iv.—Aq. 3 j.
Pot. subcarb. 3 ij.
Solve Potass. aq. tepid.—Adde ol. deinde sulph.
Adde camphor 3 ij. ad libitum.*

R. Sapon. alb.—Sulph. prec. p. æq. solve.

R. Sulph. sublim. p. 2.
Potass. purif. p. l.
Axung. p. 8.—Ter die utend. cum balneo sulph.

R. Potass. subcarb. 3 ss.
Aq. ros. 3 j.
Hyd. sulph. rubr. 3 j.
Ol. ess. burgamot. 3 ss.
Sulph. sublim.
Adipis. suill. aa 3 ix.—M.†

R. Zinci sulph. lact. sulph.
Baccæ lauri a p. æq.—Ol. 2 s. ut f. unguent.

* Mr. Lugot. † At St. Louis.

R. Hyd. oxyd. alb. 3 j.
Axung. 3 iv.—M.

R. Hyd. muriat. 3 ss.
Axung. 3 iij.—M.*

These two last ointments I have found very efficacious, combined with the sulphur fumigation, in the moderate forms of scabies porcina. In the pustular form, on the contrary, where there is much inflammation, these stimuli are inadmissible, and it will sometimes be requisite to apply for a day or two tepid fumigations, and to give purgatives previous to the employment of more active modes. In the debilitated and cachectic child, it will, of course, be necessary to administer tonics, and it is in this state that the combined employment of mild laxatives, of the sulphur fumigation, and of tonics, will be especially efficacious.

* Jasser.

BOSTON, TUESDAY, SEPTEMBER 15, 1829.

MOTIVE POWERS OF THE CIRCULATION.

In our last number we alluded to some experiments of Dr. Poiseuille, of Paris, with regard to the functions of the arteries. We propose, in the present article, to enter more fully into the subject of the circulation, and to lay before our readers the present state of our knowledge on this subject, as augmented by the investigations of the latest physiologists.

What is the motive power of the heart, or the force with which this organ acts upon the circulating fluid, is a point on which there has proba-

bly prevailed as much difference of opinion, as on any other in physiology. Keil estimated this force at five ounces, Hales at $51\frac{1}{2}$ pounds, and Borelli at 180,000 pounds.

The conclusion of Hales was obtained by connecting the carotid artery of animals with a vertical tube, and noticing to what height the fluid ascended in the tube. His calculation, as well as those of the others, has been very carefully examined by Dr. Poiseuille, who shows that the two latter are wholly inaccurate, and their results unworthy of confidence. In the experiments of Hales, the column of blood obtained as

above mentioned, was found to vary from 32 to 116 inches in height; the average assumed by him for man was therefore 90 inches; and as the internal surface of the left side of the heart is equal to 15 square inches, he concluded that the pressure it sustained was ninety times 15 cubic inches of blood, or $51\frac{1}{2}$ pounds. There are, however, two sources of error in this calculation,—one arising from the average taken for man, which may be much too large or too small; and the other from taking the whole internal surface of the heart to represent the area on which the pressure is exerted. The column of blood should be multiplied, not by the area of the inner surface of this organ, but by that of a section through its left cavity, made from the base to the apex. This variation would reduce the result to one-fourth, and supposing the rest of the calculation accurate, to about 13 pounds.

This *static* force of the heart, or the pressure which the internal surface of the left side sustains in its contractions, it was the object of Dr. Poiseuille's inquiries to determine. To do this with exactness, he made use of a tube having a double curvature, and thus presenting a horizontal, a descending and an ascending portion, the turn below being somewhat abrupt, so as to bring the two latter portions near to each other. These two portions are filled to a certain height with mercury, and the horizontal part being adapted, by an ingenious contrivance, to arteries of different calibres, the quantity of the quicksilver displaced, and its rise in the ascending portion, determine the

force with which the blood is propelled from these vessels.

The experiments made by Dr. Poiseuille in this manner, though not strictly uniform in their results, establish one important fact; that the force with which the blood is impelled is not diminished by distance from the centre of the circulation; that it is the same in the large and the small arteries of the same animal; that it also corresponds in the vessels of different animals, notwithstanding their disparity in size and their diversity in situation. Under all these circumstances, the force which impels the blood may be represented by the pressure of a column of quicksilver of six and three-fourth inches in height, and of a size corresponding to the calibre of the vessel. Now since this has been ascertained to be true in animals of different species, and varying in weight from 9 pounds,—the weight of a small dog,—to 600 or 700 pounds,—that of a horse,—it seems not too much to infer that the same calculation is applicable to the human race. If this be admitted, it will follow that the force with which the blood is impelled in any vessel, is equal to the vertical pressure of as many cubic inches of quicksilver as are obtained by multiplying the area of the vessels given by 7,305. To determine what is the area of the vessel which forms the subject of inquiry, it ought to be subjected artificially to that amount of pressure which is assumed as the average. To apply this to a particular case:—In a man 29 years of age, the diameter of the aorta at the level of the semilunar

valves, was found, under a pressure of 6.3 inches of quicksilver, to be $1\frac{1}{2}$ inch. The corresponding area, which is 1.4 multiplied by 6.3, gives 8.88 inches of quicksilver, or about $72\frac{1}{2}$ oz. Avoirdupois, which represents the total static force of the blood in the aorta at the moment of the heart's contraction. And as it has been shown that one of the elements in the above calculation is invariable, it follows that the force which moves the blood in an artery, is in the direct ratio of its area, whatever be the situation it occupies; and that the area of an artery when under the usual pressure being known, the amount of force exerted on its contents by the heart's action, may at once be determined.

Such is Dr. Poiseuille's theory of the force of the heart's action; and disclaiming, as it does, to be absolutely demonstrable, it certainly conveyed to our own mind, at first sight, a full conviction of its truth. The mode of estimating the momentum of the blood is altogether unexceptionable; and the results obtained in this mode from the arteries near the heart, are doubtless a just criterion of the force exerted by that organ on the portion of the sanguineous column which is nearest to itself. The fallacy, if there is any, seems to lie in the inference, that because the blood moves with proportional momentum in other parts of its course, it does so in virtue of the unaided action of the heart. The question is not even stated, much less settled, whether the arteries themselves contribute in any way to keep up this equilibrium of

power. The very point at issue, the point on which a great portion of the disputes in regard to the circulation have turned, is apparently assumed as already determined, and beyond the reach of controversy. This we hold to be an unauthorized proceeding. What Dr. P. has really effected by his investigations on his main subject, is to determine the force with which, in different animals, the heart acts on the blood contained in the aorta; and his conclusion on this point, in regard to man, though confessedly founded upon analogy, seems so very probable, and so little likely to be controverted by more accurate experiments, that we are very willing to admit it as true.

But if the precise question as to the action of the arteries in the circulation has been left untouched by Dr. Poiseuille, it has received from another, and no less able physiologist, abundant consideration. In a learned and elaborate treatise lately published, Dr. Wedemeyer, of Hanover, has examined into the various theories which have been maintained as to the passage of the blood through the arteries and capillary vessels, and records his own investigations and conclusions on both these important topics.

Dr. W. denies that the middle coat of the arteries is in any proper sense muscular. To prove this assertion, he compares its mechanical and chemical properties with those of the true muscular fibre, and demonstrates them to be wholly distinct and widely different from each other. By a similar train of reasoning, Dr. W. satisfied himself that the

arteries do not possess any vital contractility, in virtue of which they act on the blood contained in their cavities. No fibre, unequivocally muscular, is insensible to the stimulus of galvanism. To this rule the heart has been said to form an exception; but later experiments prove that the fibres of that organ contract under the galvanic stimulus. On the contrary, the arteries, under the application of this agent, have remained entirely unaffected. Dr. W., in common with Bichat, views the pulse as produced partly by a change of place, and partly by a slight increase in size; but maintains that this increase, and its subsequent return to its previous calibre, are referrible to the mere property of elasticity, and do not imply any vital contractility on the part of the vessel itself.

In considering the subject of the circulation through the capillaries, Dr. W. advert to the structure and disposition of the minute vessels. He finds, in common with other inquirers, that the fibrous coat of the arteries becomes less and less distinct as they increase in size, and at length disappears altogether. The same is the case with the inner coat of these vessels; so that at length they terminate in membraneless canals formed in the very substance of the tissues. It is in this way, for the most part, that the communication is formed between the arteries and the veins; a direct communication between them, though occasionally found, being comparatively rare. Such being admitted to be the form of the capillaries, the question, how is the blood carried through them, remains to be

answered. Bichat denies that the heart has any influence on this part of the circulation; but, as Dr. W. thinks, without sufficient reason. When fluids are thrown into the arteries from a syringe, they are found to pass through the capillaries with great ease; in fact, with a degree of force confessedly inferior to that which the heart exerts on the blood during life. Further, it has been asserted by Haller, and the observation is confirmed by others, that the suctory motion given to the blood by the heart, may be noticed occasionally in the capillaries, and even in the veins. It seems probable, therefore, that under all circumstances, some portion of the momentum which is given by the heart to the blood in the arteries, extends itself to their ultimate ramifications in the substance of the various organs.

But it is not by this direct action only that the heart influences the blood in the capillaries; this part of the circulation is undoubtedly promoted by the suction power of the auricular cavities on the blood in the veins. Dr. Barry, as will be recollect, laid great stress on this suction power, and supposed it to be greatly increased by the vacuum formed during inspiration. This particular view of the subject has not met the approbation of other physiologists; and Dr. W. opposes it in a series of ingenious and apparently conclusive arguments. The true suction power of the heart is independent of respiration, arising from the dilatation of the auricles, and exerted synchronously with the pulsations, as has been proved by actual

experiment. The amount of this, however, is very inconsiderable, and the effect thus produced on the capillary circulation scarce worth estimating.

The next object is to determine the degree of vital contractility possessed by these vessels, and whether it is by virtue of this property that they propel the blood. The result of experiment on this point is decidedly against such a supposition. By the application of certain stimuli, contraction was produced in the minute arteries and in the capillaries of animals, but not such contraction as could be supposed, under any circumstance, to propel the blood; and there is no proof that any such takes place in a natural state of the circulation. On the contrary, when the web or mesentery of the living frog was examined with the microscope, no change could be observed in the diameter of the smaller arteries or capillaries. Dr. W. concludes, therefore, that the circulation in these vessels is wholly unaided by any such contraction.

In view of the difficulties which are met in attempting to explain the capillary circulation, some physiologists have proposed the opinion that the blood moved in these vessels, not in virtue of any external force acting on it, but by an innate power of motion possessed by itself. This doctrine, opposed as it is to received principles in regard to the animal fluids, has had its zealous and able advocates, and is not without some support from well established facts. On the whole, however, the arguments in its favor do not seem very

conclusive, nor need we recapitulate those which have been adduced in answer. The true explanation of the facts, so far as we are able to give any, is to be found in the vital attractive force residing in the tissues, by which the blood is drawn toward them, and which is itself regulated in its degree of energy by the nervous system. The permeability of living tissues has been amply illustrated by Magendie; and the experiments of Dutrochet on the transmission of fluids through organic membranes, bear full testimony to the development, under certain circumstances, of the vital attraction referred to. What is the amount of this during life, and what degree of power it exerts in propelling the blood through the minute vessels, is matter of mere hypothesis. Dr. W. himself confesses his conviction that it cannot be regarded as a moving power of any considerable consequence. It will be seen, therefore, that the results obtained by the labors of this individual, valuable as they are to us and creditable to him, add little to our means of explaining the motion of the blood from the point where the influence of the heart may be supposed to cease. They are almost wholly of a negative character. While they prove the insufficiency of the explanations hitherto given of this process, they fail to substitute in their place any, more definite or more probable; and, mortifying as it is to allow that our knowledge of phenomena daily passing before our eyes is confined within such narrow limits, the confession seems to be extorted from us by imperative necessity.

That the unaided power of the heart transmits the blood through its whole course, it is certainly not easy to admit; but what is the nature of the other motive powers concerned in the circulation, is a point on which much is still left for future researches to determine.

USE OF THE SPLEEN.

A PHYSIOLOGIST, by the name of Strauz, has thrown out a novel doctrine respecting the spleen. Having been some time engaged in examining the subject, and in experimenting on the spleens of elephants and other animals, he has arrived at the conclusion that this organ, which has puzzled the wise ones of every age, is no other than an electrical apparatus. "I can show," says he, "by experiments, and by facts from comparative anatomy, that the spleen is an electric apparatus, by the agency of which the blood undergoes a particular modification."

If it be true that some savage tribes cut out the spleen of their hunters in order to remove an obstruction to their speed, and if, as we have been taught to believe, this part has been taken from the dog without producing any perceptible functional derangement, we must believe that the *particular modification* of the blood by splenetic electricity is of very little importance to the system. As, then, in nature there are no supernumeraries, it is altogether probable that, until the *facts alluded to by M. Strauz* are fully exhibited, the profession will consider themselves in as much uncertainty on the subject as at any former period.

CASE OF FIVE CHILDREN AT A BIRTH.

Furnished by Dr. Weiss, and communicated to the Clinic by M. Carus.

A WOMAN, 27 years of age, who had been married five years, of a middle stature and robust constitution, after having given birth to twins two years before, was put to bed with five children. The regular period of pregnancy was passed, and nothing in particular occurred, except that the woman felt herself more feeble than usual, with less inclination to eat or sleep. The abdomen had been very much distended, especially on the right side. The movements had been chiefly felt on the left side. The birth of the first child was very easy, and took place soon after the formation of the watery sac. The others came more slowly, and the last with much the most difficulty. Each was enclosed in a separate sac, and immediately followed by its particular placenta. All were born with the head presenting in the first position. The first that came were two boys, then a girl, next a boy, and then a second girl. Not one of them survived the third day. Their general length was from fifteen and a half to sixteen and a half inches. The second boy did not weigh two pounds after his death. Although all were regularly formed, they did not appear to have attained perfect maturity. With the boys, the umbilical cord was sixteen inches long, but only twelve with the girls; pulsation in it could scarcely be perceived at the moment of birth. The children had an old look; their voice was tremulous; they slept continually; and their temperature was very low. The mother, although very feeble, soon regained her health.—*Gemeinsame deutsche Zeitsch. fur Geburtsk.*

This is certainly and very happily an uncommon case. Instances, however, are on record in which six

children have been born together ; and Petrus Borelli tells us of a distinguished nobleman whose wife was delivered of eight at a single birth. This took place in Paris, in 1650. Two of these children were quite large, and six were very small. The history is generally considered authentic.

Peculiar Eruptive Disease, epidemic among Children.—It is stated in Rust's Magazine, 1829, that Dr. Strehler, of Dingelstädt, has observed among children, most of whom had been already affected with scarlatina, a peculiar acute eruption, commencing with tolerably severe febrile symptoms and vomiting ; the pulse quick and hard, the skin dry and hot. There was severe pain of the head, and inclination to sleep ; great thirst, and sometimes delirium. With these symptoms there quickly appeared an eruption, principally confined to the neck, breast, and upper part of the abdomen, of a deep red, similar to erysipelas, interspersed with numerous small papulae, resembling those of measles. There was no redness of the eyes, no symptoms of catarrh, nor any affection of the chest. By the third day, the eruption extended itself to the knees, but appeared very slightly, or not at all, on the arms and legs. The febrile symptoms continued, in general, for five days, or even longer ; when, in most cases, a perspiration broke out towards evening. A desquamation now took place from the whole body, but most extensively from the neck. In some cases, the sudden repulsion of the eruption was followed by inflammation and suppuration of the glands of the neck.—The treatment pursued was very simple ;—in the commencement, the patient was allowed to drink freely of cold water, subsequently of simple elder tea. The disease appears to have been attended with little or no danger.

M. Lisfranc's Treatment of Elephantiasis.—This consists, 1st, in reducing the nourishment one-fourth part, then a third, and finally one-half ; 2d, in the employment of bloodletting, or application of leeches. Antiphlogistics persevered in until the inflammatory symptoms are entirely dissipated. After this, he has recourse to compression. When these means do not succeed, he applies numerous vesicatory, or resorts to scarifications, making one hundred at a time. In one case, the number of these amounted to three thousand.

But to ensure success, it will be necessary to use great numbers of leeches every time that inflammation supervenes. If this inflammation be of the erysipelatous kind, it must be left to run its course, at least if it be not too violent (in which case leeches and antiphlogistics will be required), since experience has shown that this form of inflammation is favorable to the resolution.—*Nouv. Biblio. Méd.*

Phrenology.—Dr. Elliotson related, at a meeting of the London Phrenological Society, the following case of a young lady under his care, who is diseased mentally in reference to cleanliness. This patient "suffers the greatest anxiety lest any dirt should touch her, or any dust get on her. If she treads on anything in the street that is in the form of dirt, she stands and examines it, and, after looking at it for some time, heaves a sigh and goes on. Sometimes she stops so long that a crowd collects, a coach is called, and she is carried away. When any person enters the room, she rises and tries whether the door is fast, lest any wind should blow dust in upon her. On being asked whether she felt any pain in her head, she replied 'yes,' and put her fingers on the organ of cautiousness." —*Lond. Med. & Surg. Journ.*

On blistering Infants.—The melancholy consequences which fre-

quently arise from the application of blisters to young children, renders every suggestion which it is probable may prevent them of great importance. We find that an hour, or an hour and a half, is a sufficient time for a blister to remain on a child, and although at the expiration of that time no vesication is apparent, yet, if the part be covered with any mild dressing or a poultice, a sufficient degree of irritation will be observed in a few hours' time; in fact, quite sufficient for the peculiarly delicate and susceptible constitution of children. When the emplast, cantharides has been employed in this manner, we have never witnessed any alarming result.—*Ib.*

Complete Amaurosis cured by the Application of Leeches to the Nasal Fossæ.—Dr. Guepinet, of Landrecies, relates, in the *Annales de la Médecine Physiologique*, Vol. X., the case of a child, aged five years, who was suddenly attacked with complete amaurosis, without any known cause. The disease resisted the usual remedies for nearly two months and a half, when Dr. G. being consulted, he advised the application of leeches to the nasal fossæ. The day after the application, the child was able to see a little;—thus encouraged, Dr. G. had one or two leeches applied daily for a week, at the end of which period the child's sight was entirely re-established.

Anti-asthmatic Effects of the Tincture of Lobelia Inflata.—Mr. W. B. Andrews states, in a communication to the Editor of the London Medical Gazette, that he has been, for upwards of two years, afflicted with an inveterate asthma, which deprived him of rest, and the spasmodic effects of which were frequent and most distressing. When he finds these paroxysms coming on, he now takes fifteen drops of the tincture of the *Lobelia inflata*, which invariably

gives him immediate relief, although previously to his using it the violent coughing fits often lasted from one to two hours.

Chirayita in Asthma.—A mixture of the infusion of the chirayita herb, the tincture of the *lobelia inflata*, and the subcarbonate of soda, in the following proportions, have been taken with the most decided advantage by several nervous asthmatics, whose digestive organs were at the time much disordered:—

Take of Infusion of Chirayita, 3 vij.

Tincture of do., 1 3*i.*

Tincture of Lobelia Inflata, 3*i.*

Subcarbonate of Soda, 3*i.* Mix.

The dose of this mixture is from two to three tablespoonsful three times a day.

Puerperal Fever.—A physician of Toulouse has published a case of puerperal fever, attended with very unfavorable symptoms, in which the application of ice to the surface of the abdomen, and drinking freely of iced water, after copious bleeding, proved successful. The day after the adoption of this practice, the patient perspired copiously, the mammary glands secreted milk, and the lochia reappeared. The patient entirely recovered in a few days.

Tic Douloureux.—Dr. P. Richet, of Metz, relates, in his thesis presented to the Faculty of Medicine of Strasbourg, four cases of this disease, which, after resisting the ordinary treatment, yielded to the administration of powdered Peruvian bark one grain, and snuff two grains, mixed and used as snuff. He says he always found the above dose sufficient, and in the course of two or three days to cure the malady as if by enchantment.

Among the new remedies for Tic Douloureux, that which is most highly praised by those who have used

it, is the *essential oil* of the *laurus nobilis* (the sweet bay.) It is said that the external application of this oil is immediately efficacious in relieving the pain and terminating the spasm. The strongest case we have seen noticed, is that of a medical gentleman in England who was several months severely afflicted with this disease in the face and forehead. The paroxysms were sometimes so violent as to produce delirium. He states that "this essential oil, gently rubbed over the parts affected, almost instantaneously allayed the pain, and always succeeded in procuring a good night's rest."

Hip Presentations.—In the Maternité, in Paris, in twenty thousand cases, three hundred and sixty were hip presentations. Of these, only thirty required the interference of art.

—*La Clinique.*

Sulphate of Copper in Bread.—M. Orfila has detected sulphate of copper in bread made at Bruges. He was consulted by the authorities there on the subject, from a suspicion on their part that deleterious substances were employed by the bakers in that city, to improve the appearance of the bread.—Do the London bakers make us eat blue vitriol in our rolls?—*Med. Gaz.*

Supposed Artificial Diamonds.—M. Thenard gave an account of the experiments made by himself, MM. Dumas and Cagniard de la Tour, to verify the trials by which the latter thought he had obtained the power of crystallizing carbon, and forming diamond. An accurate analysis of these crystals, which had no color, proved, however, that they were only silicates, and not artificial diamond.—*Annales de Chimie*, 1829.

Laurel.—The butchers of Geneva have a singular mode of preventing

flies from attacking the meat in their shops. They rub the walls and boards on which the meat is placed with the essential oil of laurel; the smell of which keeps away this troublesome insect.

Law and Medicine.—Where can you go, where there are not at least twice as many aspirants for the practice of law and medicine, as can find honorable subsistence and employment in these professions?—What must be the occupation of these supernumeraries, unable to dig, ashamed to beg, and with minds sharpened by cultivation, study, pride and ambition, and looking upon laws as men-traps, and society as fair game? It is out of the question, that there is a ruinous propensity, in the great mass of the people, to train their children to live by their wits instead of their industry. We know not how others regard this unhappy inclination. To us it is one of the most fearful omens of our day. True, it must ultimately correct itself. But what formidable armies of scheming dandies, and of wordy demagogues, and reckless editors, will be forced upon the community, born to eat up the corn, and compelled to raise the wind, that, as moon cursers and wreckers, they may profit by confusion! Mr. Este recommends that the pursuit of agriculture swallow up these supernumeraries, who, instead of making harangues and stump speeches, and eulogizing king Caucus, may be more usefully employed to make two blades of wheat to grow where only one grew before.—*West. Rev.*

REPORT OF DEATHS IN BOSTON,

The week ending Sept. 11, at noon.

Of abscess, 1—consumption, 3—convulsions, 1—cholera infantum, 2—croup, 1—canker, 1—dysentery, 2—delirium tremens, 1—infantile, 4—lung fever, 3—measles, 2—sudden, 1—teething, 2—unknown, 2. Males, 16—females, 10. Total, 26.

ADVERTISEMENTS.

CARTER & HENDEE have just published.—The Constitution of Man, considered in Relation to External Objects. By **GEORGE COMBE**.

From the Preface to the American edition.

"Mr. Combe's work should be placed with those, of which so many within a few years have appeared, which are devoted to the all-absorbing topic of Education. It treats of moral, intellectual, and physical education. This is not formally done under so many distinct heads. But the whole course of reasoning of the author, and the whole array of all his illustrations, have it always obviously in view to show how the highest cultivation of each of these may be most surely brought about.

"The publishers have printed this edition from a belief that there is much in the work to interest the community.

"It has a novelty to reward the general inquirer, and it presents the well known under novel aspects. There is one class amongst us who may study it with much advantage. Scholars are referred to, a class here too small to form a distinct order with habits of their own, and who insensibly fall into those which, although not mischievous, to the multitude on the score of health, too often make ill health the portion of the sedentary student, and bring upon him premature decay.—To all classes it is recommended, and the various learning and acuteness of the author well fit him to write a book which addresses its instructions to the whole community."

Sept. 8.

HARVARD UNIVERSITY.

MEDICAL LECTURES.

THE MEDICAL LECTURES in Harvard University will begin in the Massachusetts Medical College, Mason-street, Boston, the third WEDNESDAY in October next, the 21st, at nine o'clock, A. M.
Anatomy and Surgery, by Dr. WARREN.
Chemistry, Dr. WEBSTER.
Midwifery and Medical Jurisprudence, Dr. CHANNING.
Materia Medica, Dr. BIGELOW.
Theory and Practice of Physic, Dr. JACKSON.

Students attending the Medical Lectures are admitted, *without fee*, to the

Published weekly, by JOHN COTTON, at 184, Washington St. corner of Franklin St., to whom all communications must be addressed, *postpaid*.—Price three dollars per annum, if paid in advance, three dollars and a half if not paid within three months, and four dollars if not paid within the year. The postage for this is the same as for other newspapers.

Surgical Operations and Clinical Practice of the Massachusetts General Hospital, during the course.

Aug. 4. W. CHANNING, Dean.
 Sept. Oct 21.

A TREATISE on the Scrofulous Disease, by C. G. HUFELAND, Physician to the King of Prussia, &c., translated from the French of M. Bousquet, by Charles D. Meigs, M.D., is just received and for sale by **CARTER & HENDEE**.

Sept. 8.

EUROPEAN LEECHES.

RICHARD A. NEWELL, Druggist, respectfully acquaints the physicians and families of the city, that he has made arrangements with one of the first mercantile houses on the continent, to be regularly supplied with the Genuine Medicinal Leech. He has now on hand a fresh supply, just received, which are for sale.

N. B. The difficulty of obtaining genuine Leeches by the usual way has induced him to make the above arrangement at considerable expense, and he hopes it will meet the approbation of the medical faculty. Summer-street, opposite Purchase-street.

Sept. 1.

3d.

BERKSHIRE MEDICAL INSTITUTION.

THE Annual Course of LECTURES will commence on the first Thursday in September, and continue fifteen weeks.

Matriculation ticket, \$3. Fee for Lectures, \$40. Library ticket, \$1. Graduation, \$15.50. Board, including washing, lodging and room, \$1.75 a week.

Pittsfield, July 22, 1829. augtsept30

EUROPEAN LEECHES.

CHARLES WHITE, No. 269 Washington street, corner of Winter street has just received a fresh supply of EUROPEAN LEECHES, extra large and in prime order. Also, by the late arrivals, a general assortment of MEDICINE.

* * Strict personal attention paid to Physicians' prescriptions and to the compounding and delivery of Family Medicine, and all favors gratefully received.

Sept. 1.

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